REMARKS

Claims 3-9 are original in the application. In the present amendment, Applicants amend Claim 1 and cancel Claim 2.

Objection to Specification

The disclosure is objected to for the informalities: On page 22, lines 12 and 13, both references to "bit generator 504" should be "bit generator 514" so as to match the reference number in Fig. 5d. Page 22 paragraph 3 of the specification was corrected to match Figure 5d. The corrected specification corresponds to the original drawing, and no new matter has been added. All the stated grounds for objection have been properly addressed, and the examiner is respectfully requested to withdraw the objection.

Objection to the Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign not mentioned in the description: part number 515 in Fig.5a. Page 20 paragraph 1 has been amended to include part number 515. The corrected specification corresponds to the original drawing, and no new matter has been added. All the stated grounds for objection have been properly addressed, and the examiner is respectfully requested to withdraw the objection.

The drawings are objected to because Fig. 5e part number 552 should have "Walsh (++--)" not "Walsh (+-)" so as to match page 25 line 23 and page 24 line 1. Applicants amend Fig. 5e to incorporate Examiner's recommended corrections.

Rejection under 35 U.S.C. § 102(e):

Claim 1 is rejected under 35 U.S.C. § 102(e) as being anticipated WO Patent Application No. 99/18684 filed by Anglin (Anglin) September 25, 1998 and published

Attorney Docket No.:
Customer No. 23696

April 15, 1999. The analysis of claim 1 is carried out with respect to claim 1 as representative of the claims rejected by the office action.

The application is directed to a method and apparatus using a multi-carrier forward link in a wireless communication system. The 1X FDD mode operates within a 1.25 MHz bandwidth on both the forward and reverse links, thereby providing for higher capacity in the 1.25 MHz bandwidth and supporting high-speed data transmissions. The spreading rate is 1.2288 Mcps on both the forward and reverse links of 1X systems. The 3X mode operates within a 5MHZ band on both forward and reverse links. The 3X mode forward link employs a multi-carrier transmission format where three signals are spread at a spreading rate of 1.2288Mcps. By using the 3xFDD mode and providing a forward link using the multi-carrier format, a communication system is fully compatible with existing IS-95 systems. That is, the cdma2000 forward link structure may be "over-laid" on existing PCS systems. One attribute that makes the forward link multi-carrier system compatible with existing systems is that it preserves orthogonality of signals transmitted in the forward link. The reverse link is not orthogonal, so cdma2000 systems use a direct spreading to 3.6864 Mcps.

In contrast, Anglin is an invention that provides for a user terminal capable or receiving multiple channels of broadband data broadcast transmissions. (Anglin page 4 ¶ 5.) The invention provides digital signal processing which encompasses de-multiplexing of the received broadcast signal, processing the channels of programming data, and delivering them to the appropriate port of the user interface. (Id at p. 5 ¶ 1.)

Considering claim 1, the amended claim reads:

A method to allocate a reverse link within a band class, said reverse link communicatively coupling a base station and a mobile station, comprising:

transmitting first information on a multi-carrier forward link comprising multiple frequencies which support any combination of code channels;

receiving said first information at said mobile station;

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transmitting second information on said reverse link at one of said multiple frequencies; and

receiving said second information at said base station.

In order to anticipate a claim, the reference must teach each and every element of the claim. (M.P.E.P §2131.) Applicants submit that Anglin fails to disclose: transmitting first information on a multi-carrier forward link comprising multiple frequencies which support any combination of code channels.

Anglin provides for a broadcast over multiple channels. (Anglin p. 2 ¶ 4.) The Examiner states "Anglin does not disclose having the multiple frequencies support any combination of code channels." (Office Action p. 4 ¶ 2.)

Applicants respectfully submit that claim 1 is patentable and accordingly request that the rejection of claim 1 under 35 U.S.C § 102(e) be withdrawn.

<u>Claim Rejection under 35 U.S.C. § 103(a)</u>

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Anglin in view of U.S. Patent No. 6,335,922, filed February 11, 1997, and issued January 1, 2002 to Tiedemann, et al. (Tiedemann). Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Anglin in view Tiedemann as applied to claim two above, and further in view of U.S. Patent No. 5,056,109, filed November 7, 1989, and issued October 8, 1991 to Gilhousen et al. (Gilhousen). Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Anglin in view Tiedemann and in further view of Gilhousen as applied in claim 3 above, and in further view of U.S. Patent No. 6,173,007, filed January 15, 1997, and issued January 9, 2001 to Odenwalder et al. (Odenwalder). Claims 5-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Anglin in view of U.S. Patent No. 5,648,955 filed June 7, 1995, and issued Jult 15, 1997 to Jensen, et al. (Jensen). To establish a *prima facie* case of obviousness under 35 U.S.C §103(a), a cited combination of prior references must teach or suggest all of

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the claim limitations of a rejected claim. (M.P.E.P § 2142.) The pertinent independent claim is claim 1, and the primary reference is Anglin. As explained above, Anglin does not teach or suggest: transmitting first information on a multi-carrier forward link comprising multiple frequencies which support any combination of code channels.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application is earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: 30 October 2002   By: _Kent Baker_

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APPENDIX A

Page 19, the paragraph beginning with the words "Further, this...":

Further, this technique can be applied to multiple users whose signals are transmitted using completely or partially the same FL channels. For example, if the signals from four different users are going to be sent using the same three FL channels, then each of these signals is "channelized" by demultiplexing each signal into three components, where each component will be sent using a different FL channel. For each channel, the respective signals are multiplexed together to form one signal per FL channel. Then, using the technique described herein, the signals are transmitted. Returning to Figure 5a, the demultiplexed signal is then encoded by Walsh encoder 513 and spread into two components, components I and Q, by complex PN spread 515 and multiplier 517. These components are summed by summer 519 and communicated to a mobile station (not shown) by transmitter 521.

Page 22, the paragraph beginning with "Message generator...":

Message generator 512 generates necessary control information messages and provides the control message to CRC and tail bit generator [504] 514. CRC and tail bit generator [504] 514 appends a set of cyclic redundancy check bits which are parity bits used to check the accuracy of the decoding at the base station and appends a predetermined set of tail bits to the control message to clear the memory of the decoder at the base station receiver subsystem. The message is then provided to encoder 516, which provide forward error correction coding upon the control message. The encoded symbols are provided to repetition generator 518, which repeats the encoded symbols to provide additional time diversity in the transmission. The symbols are then provided to interleaver 520 that reorders the symbols in accordance with a predetermined interleaving format. The interleaved symbols are provided on line 536 to modulator 526.

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APPENDIX B

1. (Amended) A method to allocate a reverse link within a band class, said reverse link communicatively coupling a base station and a mobile station, comprising:

transmitting first information on a multi-carrier forward link comprising multiple frequencies which support any combination of code channels;

receiving said first information at said mobile station;

transmitting second information on said reverse link at one of said multiple frequencies; and
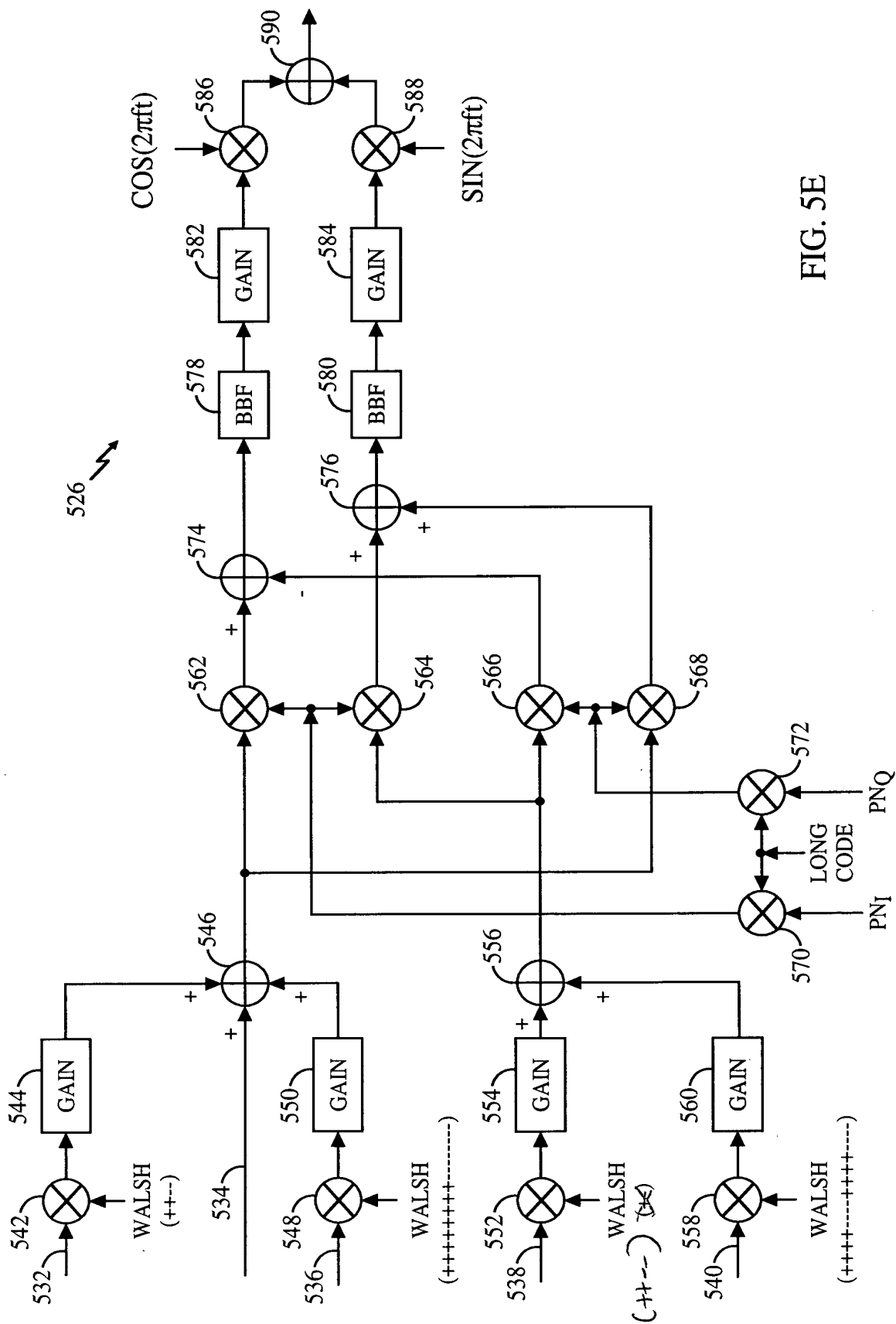
receiving said second information at said base station.

FIG. 5E